

Titles of most frequently occurring classifications of patents returned
from a search of 10594396 on Oct 13 , 2009

- 9 704/207 (7 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/205 ... Frequency
 704/206 Specialized information
 704/207 Pitch
- 6 704/219 (1 OR, 5 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/219 ... Linear prediction
- 5 704/208 (1 OR, 4 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/205 ... Frequency
 704/206 Specialized information
 704/207 Pitch
 704/208 Voiced or unvoiced
- 5 704/270 (1 OR, 4 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/270 .. Application
- 4 704/E13.004 (0 OR, 4 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E13.001 . SPEECH SYNTHESIS; TEXT TO SPEECH SYSTEMS (EPC)
 704/E13.002 .. Methods for producing synthetic speech; speech
 synthesizers (EPC)
 704/E13.004 ... Sound editing, manipulating voice of the synthesizer
 (EPC)
- 4 704/206 (2 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/205 ... Frequency
 704/206 Specialized information
- 3 704/E21.001 (0 OR, 3 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E21.001 . MODIFICATION OF AT LEAST ONE CHARACTERISTIC OF SPEECH WAVES
 (EPC)
- 3 704/232 (2 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING

704/ 231 ... Recognition
704/ 232 ... Neural network

3 704/ E19. 01 (0 OR, 3 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ E19. 001 ... SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
704/ E19. 01 ... Using spectral analysis, e.g., transform vocoders, subband
vocoders, perceptual audio coders, psychoacoustically based lossy encoding, etc.,
e.g., MPEG audio, Dolby AC-3, etc. (EPO)

3 704/ 221 (3 OR, 0 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ 200 ... SPEECH SIGNAL PROCESSING
704/ 201 ... For storage or transmission
704/ 221 ... Pattern matching vocoders

3 704/ 271 (0 OR, 3 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ 200 ... SPEECH SIGNAL PROCESSING
704/ 270 ... Application
704/ 271 ... Handicap aid

3 704/ 203 (1 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ 200 ... SPEECH SIGNAL PROCESSING
704/ 201 ... For storage or transmission
704/ 203 ... Transformation

3 704/ 246 (1 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ 200 ... SPEECH SIGNAL PROCESSING
704/ 231 ... Recognition
704/ 246 ... Voice recognition

3 704/ 272 (3 OR, 0 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ 200 ... SPEECH SIGNAL PROCESSING
704/ 270 ... Application
704/ 272 ... Novelty item

3 704/ E17. 002 (0 OR, 3 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ E17. 001 ... SPEAKER IDENTIFICATION OR VERIFICATION (EPO)
704/ E17. 002 ... Recognition of special voice characteristics, e.g., for
use in a lie detector; recognition of animal voices, etc. (EPO)

3 704/ 220 (1 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
704/ 200 ... SPEECH SIGNAL PROCESSING
704/ 201 ... For storage or transmission
704/ 220 ... Analysis by synthesis

- 3 704/E19.024 (0 OR, 3 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E19.001 .SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/E19.023 ..Using predictive techniques; codecs based on source-filter
 modelization (EPO)
 704/E19.024 ...Determination or coding of the spectral characteristics,
 e.g., of the short-term prediction coefficients, etc. (EPO)
- 3 704/205 (1 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 .SPEECH SIGNAL PROCESSING
 704/201 ..For storage or transmission
 704/205 ...Frequency
- 2 704/269 (1 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 .SPEECH SIGNAL PROCESSING
 704/258 ..Synthesis
 704/269 ...Transformation
- 2 379/390.01 (0 OR, 2 XR)
 Class 379 TELEPHONIC COMMUNICATIONS
 379/387.01 .SUBSTATION OR TERMINAL CIRCUITRY
 379/388.01 ..For loudspeaking terminal
 379/390.01 ...Amplification or attenuation level control
- 2 381/56 (0 OR, 2 XR)
 Class 381 ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES
 381/56 .MONITORING OF SOUND
- 2 381/66 (0 OR, 2 XR)
 Class 381 ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES
 381/66 .DEREVERBERATORS
- 2 704/268 (1 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 .SPEECH SIGNAL PROCESSING
 704/258 ..Synthesis
 704/268 ...Frequency element
- 2 704/264 (1 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 .SPEECH SIGNAL PROCESSING
 704/258 ..Synthesis
 704/264 ...Excitation
- 2 704/251 (1 OR, 1 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 .SPEECH SIGNAL PROCESSING
 704/231 ..Recognition
 704/251 ...Word recognition
- 2 704/254 (0 OR, 2 XR)
 Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING; LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/231 . Recognition
 704/251 . Word recognition
 704/254 . Subportions

2 704/261 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/258 . Synthesis
 704/261 . Vocal tract model

2 704/500 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/500 . AUDIO SIGNAL BANDWIDTH COMPRESSION OR EXPANSION

2 704/E19.007 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E19.001 . SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/E19.007 . Speech coding using phonetic or linguistic decoding of
 the source; reconstruction using text-to-speech synthesis (EPO)

2 704/235 (1 OR, 1 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/231 . Recognition
 704/235 . Speech to image

2 704/E11.006 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E11.001 . MISCELLANEOUS ANALYSIS OR DETECTION OF SPEECH
 CHARACTERISTICS (EPO)
 704/E11.006 . Pitch determination of speech signals (EPO)

2 704/265 (1 OR, 1 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/258 . Synthesis
 704/265 . Interpolation

2 704/245 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/231 . Recognition
 704/243 . Creating patterns for matching
 704/245 . Clustering

2 704/250 (2 OR, 0 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/231 . Recognition
 704/246 . Voice recognition

704/250

... Specialized models

2 704/276 (2 OR, 0 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/270 .. Application
 704/276 ... Pattern display

2 704/244 (1 OR, 1 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/231 .. Recognition
 704/243 ... Creating patterns for matching
 704/244 ... Update patterns

2 704/201 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission

2 704/E19.042 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E19.001 . SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/E19.023 .. Using predictive techniques; codecs based on source-filter
 modelization (EPO)
 704/E19.039 ... Details of speech and audio coders (EPO)
 704/E19.04 Vocoder architecture (EPO)
 704/E19.041 Vocoders using multiple modes (EPO)
 704/E19.042 Using sound class specific coding, hybrid encoders,
 object-based coding (EPO)

2 704/223 (1 OR, 1 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/200 . SPEECH SIGNAL PROCESSING
 704/201 .. For storage or transmission
 704/221 ... Pattern matching vocoders
 704/223 ... Excitation patterns

2 704/E19.035 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION
 704/E19.001 . SPEECH OR AUDIO SIGNAL ANALYSIS-SYNTHESIS TECHNIQUES FOR
 REDUNDANCY REDUCTION, E.G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO
 SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER
 MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
 704/E19.023 .. Using predictive techniques; codecs based on source-filter
 modelization (EPO)
 704/E19.026 ... Determination or coding of the excitation function;
 determination or coding of the long-term prediction characteristics (EPO)
 704/E19.035 Determination or coding of a code excitation; code
 excited linear prediction (CELP) vocoders (EPO)

2 704/228 (0 OR, 2 XR)

CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION

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704/200 . SPEECH SIGNAL PROCESSING

704/201 .. For storage or transmission

704/226 ... Noise

704/228 Post-transmission

2 455/570 (2 OR, 0 XR)

Class 455 TELECOMMUNICATIONS

455/73 . TRANSMITTER AND RECEIVER AT SAME STATION (E.G.,

TRANSCIEVER)

455/550.1 .. Radiotelephone equipment detail

455/569.1 ... Hands-free or loudspeaking arrangement

455/570 Noise suppression or echo cancellation

2 704/213 (2 OR, 0 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION

704/200 . SPEECH SIGNAL PROCESSING

704/201 .. For storage or transmission

704/211 ... Time

704/213 Zero crossing

2 704/243 (0 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION

704/200 . SPEECH SIGNAL PROCESSING

704/231 .. Recognition

704/243 ... Creating patterns for matching

2 704/E15.008 (0 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION

704/E15.001 . SPEECH RECOGNITION (EPO)

704/E15.007 .. Creation of reference templates; training of speech

recognition systems, e.g., adaption to the characteristics of the speaker's voice,

etc. (EPO)

704/E15.008 ... Training (EPO)

2 704/E15.017 (0 OR, 2 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/DECOMPRESSION

704/E15.001 . SPEECH RECOGNITION (EPO)

704/E15.014 .. Speech classification or search (EPO)

704/E15.017 ... Using artificial neural networks (EPO)